

FIGURE 1

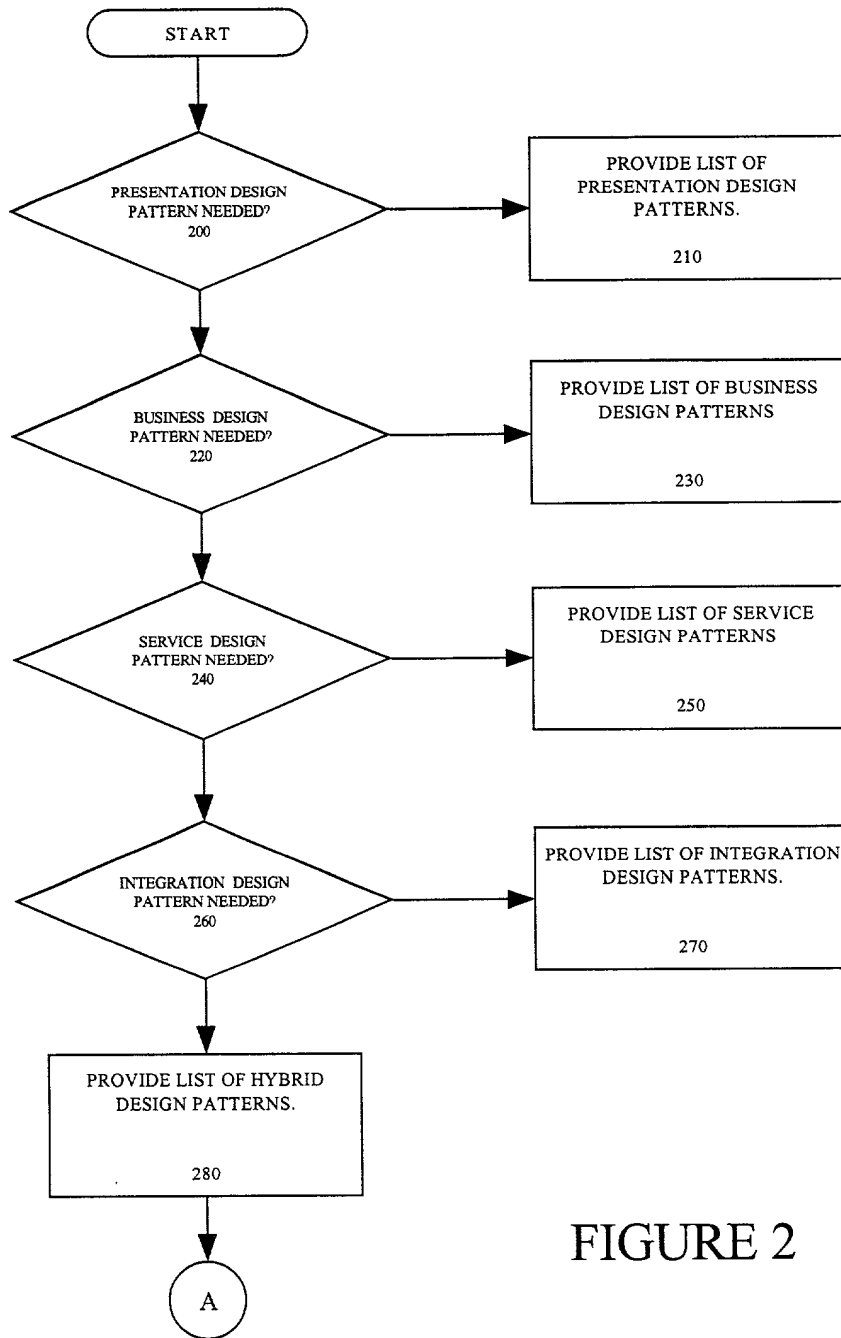


FIGURE 2

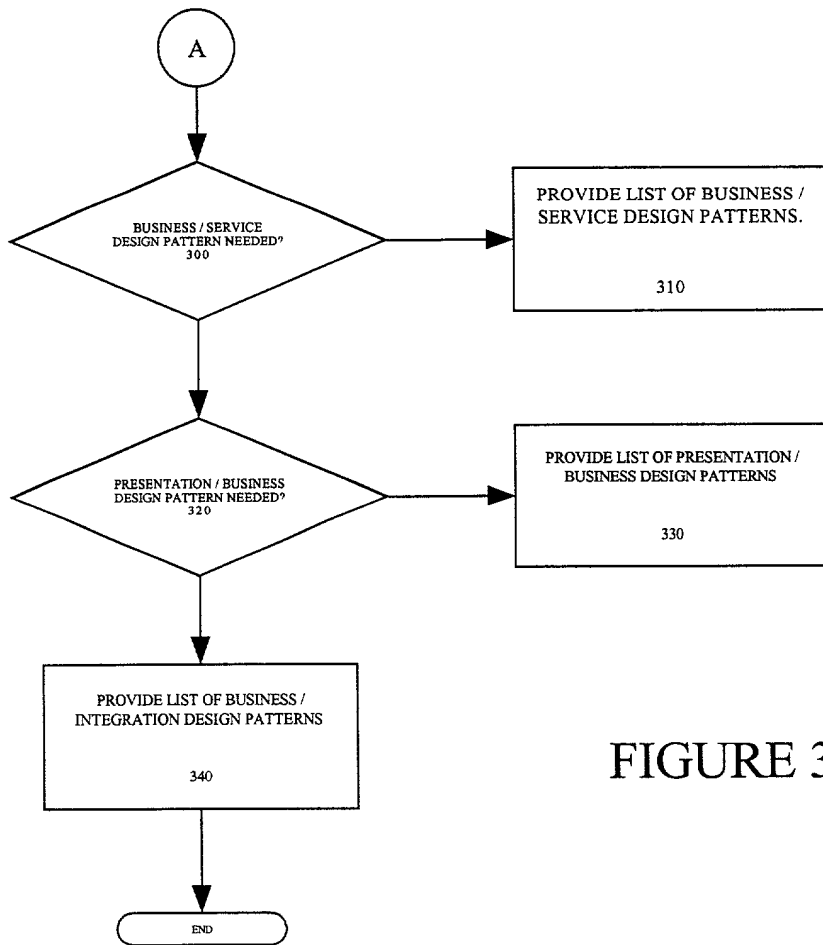


FIGURE 3

Pattern Structure, Participants and Responsibilities

Structure:

Class Diagram: Mediator View (MV)

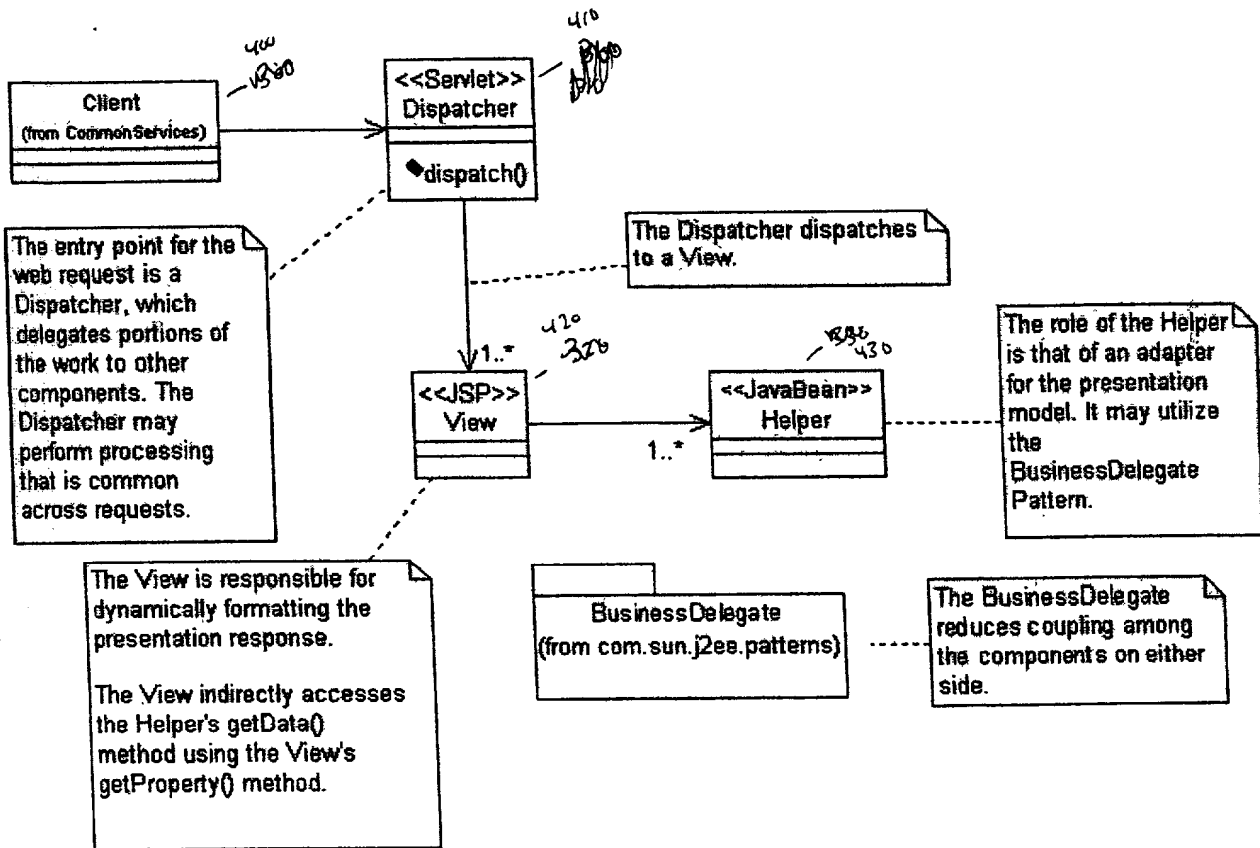


FIG 4

Parameter	Control		100 mg/kg		200 mg/kg		400 mg/kg		800 mg/kg		1600 mg/kg	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Body weight (g)	210.0	10.0	210.0	10.0	210.0	10.0	210.0	10.0	210.0	10.0	210.0	10.0
Food intake (g)	10.0	2.0	10.0	2.0	10.0	2.0	10.0	2.0	10.0	2.0	10.0	2.0
Water intake (ml)	5.0	1.0	5.0	1.0	5.0	1.0	5.0	1.0	5.0	1.0	5.0	1.0
Urine volume (ml)	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2
Urine pH	7.0	0.5	7.0	0.5	7.0	0.5	7.0	0.5	7.0	0.5	7.0	0.5
Urine creatinine (mg/dl)	0.5	0.1	0.5	0.1	0.5	0.1	0.5	0.1	0.5	0.1	0.5	0.1
Urine protein (mg/dl)	0.1	0.05	0.1	0.05	0.1	0.05	0.1	0.05	0.1	0.05	0.1	0.05
Urine glucose (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine ketone (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine bilirubin (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine urobilinogen (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine hemoglobin (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine nitrite (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine leukocytes (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine erythrocytes (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine casts (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine crystals (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine mucus (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine sediment (mg/dl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urine specific gravity	1.020	0.005	1.020	0.005	1.020	0.005	1.020	0.005	1.020	0.005	1.020	0.005
Urine osmolality (mOsm/kg)	300	20	300	20	300	20	300	20	300	20	300	20
Urine sodium (mEq/L)	100	10	100	10	100	10	100	10	100	10	100	10
Urine potassium (mEq/L)	50	5	50	5	50	5	50	5	50	5	50	5
Urine calcium (mEq/L)	20	2	20	2	20	2	20	2	20	2	20	2
Urine magnesium (mEq/L)	10	1	10	1	10	1	10	1	10	1	10	1
Urine chloride (mEq/L)	30	3	30	3	30	3	30	3	30	3	30	3
Urine sulfate (mEq/L)	10	1	10	1	10	1	10	1	10	1	10	1
Urine phosphate (mEq/L)	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5
Urine bicarbonate (mEq/L)	20	2	20	2	20	2	20	2	20	2	20	2
Urine lactate (mEq/L)	0	0	0	0	0	0	0	0	0	0	0	0
Urine urea (mg/dl)	10	2	10	2	10	2	10	2	10	2	10	2
Urine creatinine (mg/dl)	0.5	0.1	0.5									

Structure:

Class Diagram: Service To Workers

```
classDiagram
    class Client["Client (from CommonsServices)"]
    class Dispatcher["<<Servlet>> Dispatcher"]
    class View["<<JSP>> View"]
    class Helper["<<JavaBean>> Helper"]

    Client --> Dispatcher
    Dispatcher --> View
    Dispatcher --> Helper
    View ..> Helper
```

The diagram illustrates the Service To Workers pattern with the following components and relationships:

- Client (from CommonsServices)**: The entry point for the web request. It sends a request to the Dispatcher.
- <<Servlet>> Dispatcher**: The central component that delegates portions of the work to other components. It has a `dispatch()` method. It delegates processing to one or more Helpers.
- <<JSP>> View**: Responsible for dynamically formatting the presentation response. It indirectly accesses the Helper's `getData()` method using the View's `getProperty()` method.
- <<JavaBean>> Helper**: Acts as an adapter for the presentation mode. It may utilize the BusinessDelegate Pattern.

Handwritten annotations in the diagram include:

- ~50' near the Client
- 510 near the Dispatcher
- ~520 near the View
- ~515 near the Helper

FIG 5

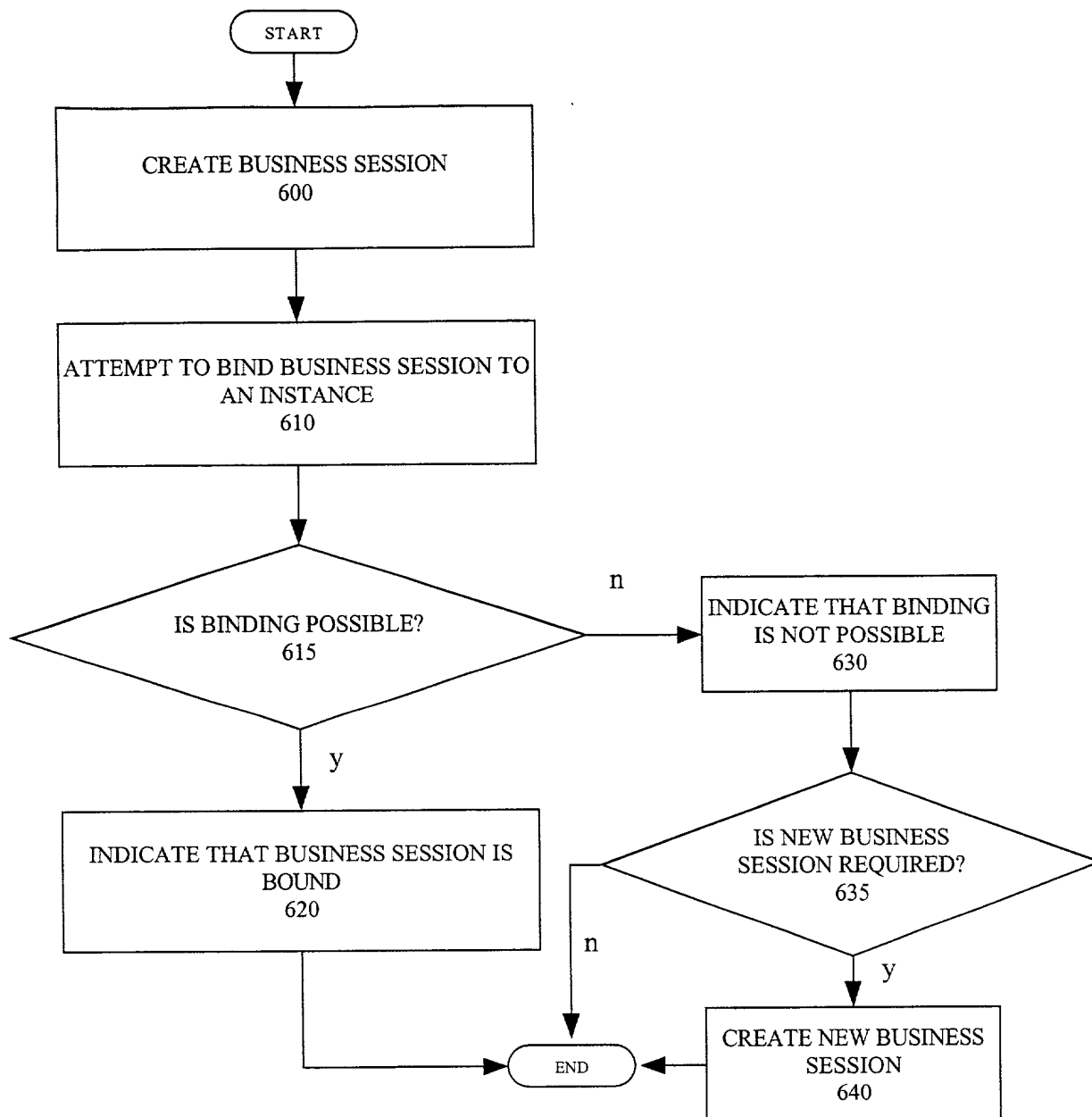


FIGURE 6

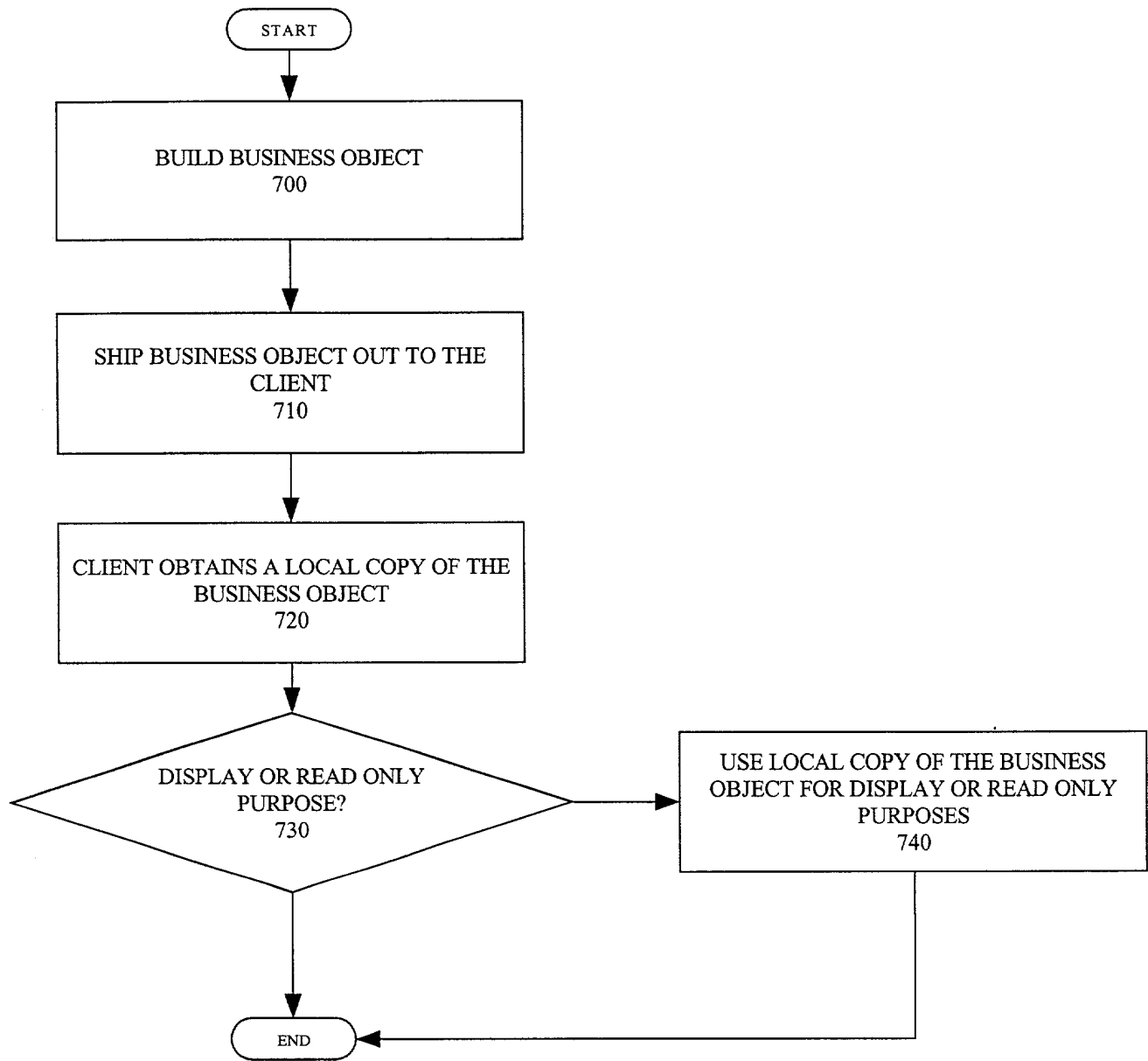


FIGURE 7

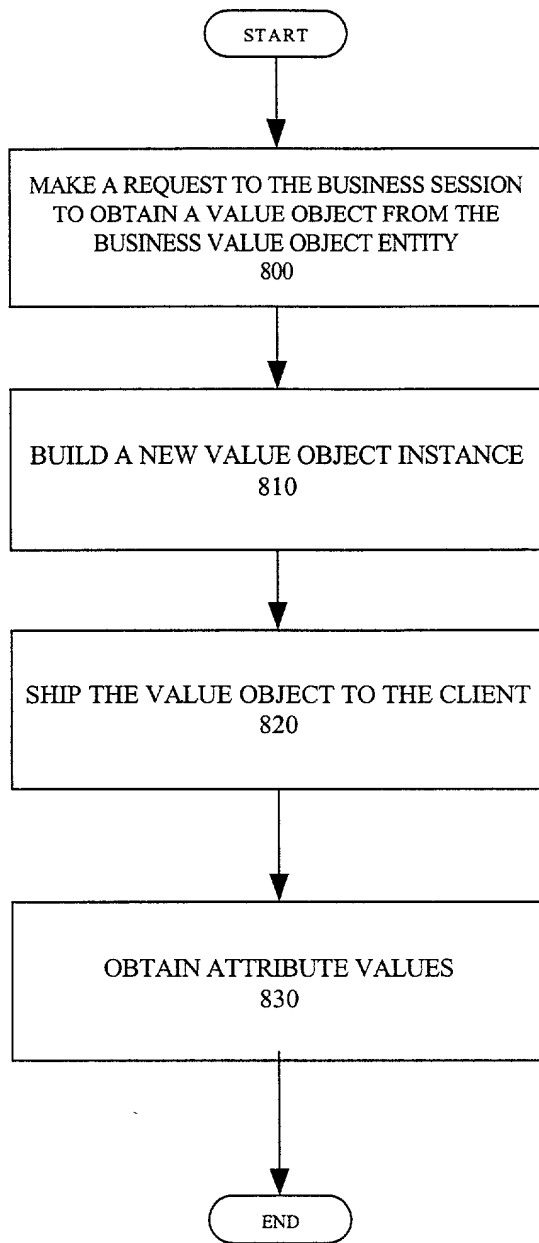


FIGURE 8

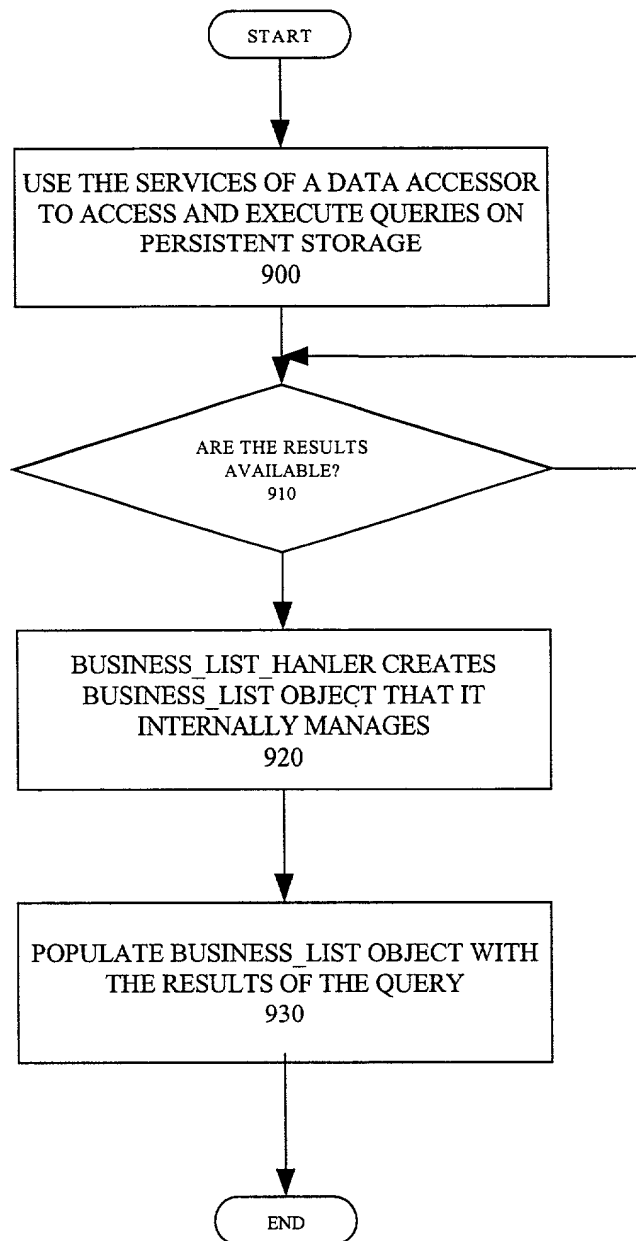
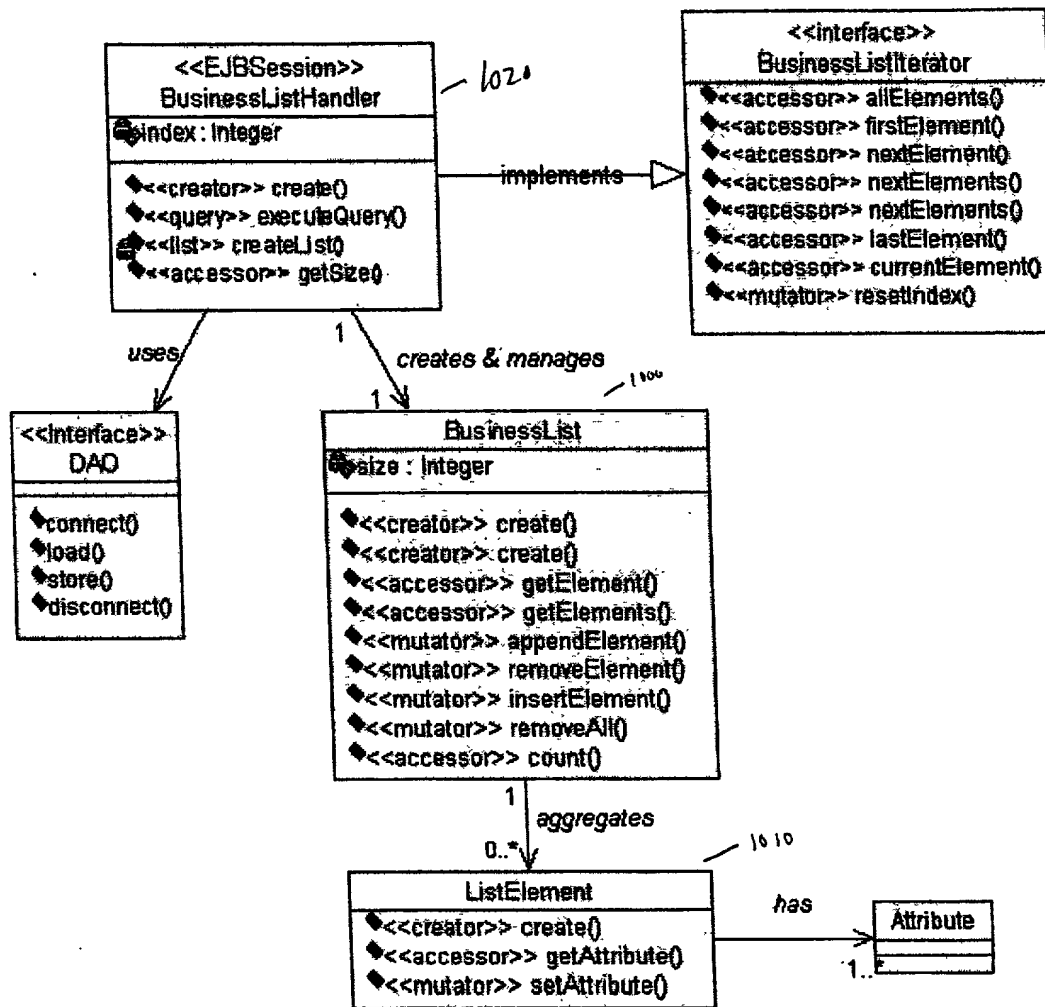
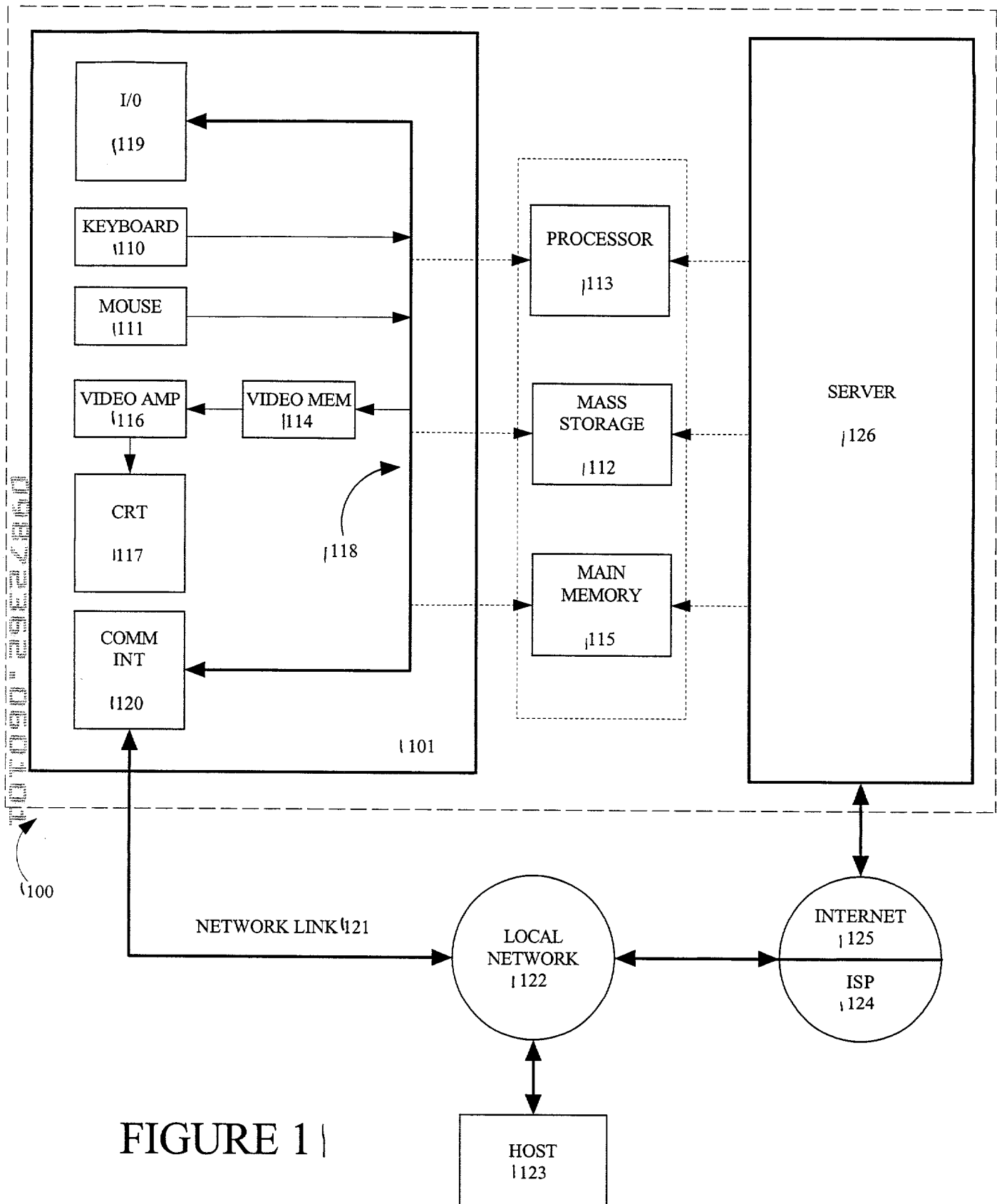


FIGURE 9

	Age	Sex	Height (cm)	Weight (kg)	Body mass index (kg/m ²)	Waist circumference (cm)	Waist-hip ratio	Trunk muscle strength (kg)	Trunk muscle endurance (s)	Trunk muscle endurance index (s/kg)	Trunk muscle endurance index (s/m ²)	Trunk muscle endurance index (s/cm ²)
1	20	M	170	65	22.0	85	0.85	100	120	1.85	1.85	1.85
2	20	F	160	55	20.8	75	0.85	80	100	1.25	1.25	1.25
3	20	M	175	70	22.2	90	0.85	110	130	1.90	1.90	1.90
4	20	F	165	60	21.2	80	0.85	90	110	1.30	1.30	1.30
5	20	M	180	75	22.8	95	0.85	120	140	2.00	2.00	2.00
6	20	F	170	65	22.0	85	0.85	100	120	1.85	1.85	1.85
7	20	M	185	80	23.2	100	0.85	130	150	2.10	2.10	2.10
8	20	F	175	70	22.2	90	0.85	110	130	1.90	1.90	1.90
9	20	M	190	85	23.8	105	0.85	140	160	2.20	2.20	2.20
10	20	F	180	75	22.8	95	0.85	120	140	2.00	2.00	2.00
11	20	M	195	90	24.2	110	0.85	150	170	2.30	2.30	2.30
12	20	F	185	80	23.2	100	0.85	130	150	2.10	2.10	2.10
13	20	M	200	95	24.5	115	0.85	160	180	2.40	2.40	2.40
14	20	F	190	85	23.8	105	0.85	140	160	2.20	2.20	2.20
15	20	M	205	100	24.8	120	0.85	170	190	2.50	2.50	2.50
16	20	F	195	90	23.5	110	0.85	150	170	2.30	2.30	2.30
17	20	M	210	105	25.0	125	0.85	180	200	2.60	2.60	2.60
18	20	F	200	95	23.8	115	0.85	160	180	2.40	2.40	2.40
19	20	M	215	110	25.5	130	0.85	190	210	2.70	2.70	2.70
20	20	F	205	100	24.2	120	0.85	170	190	2.50	2.50	2.50
21	20	M	220	115	25.8	135	0.85	200	220	2.80	2.80	2.80
22	20	F	210	105	24.5	125	0.85	180	200	2.60	2.60	2.60
23	20	M	225	120	26.0	140	0.85	210	230	2.90	2.90	2.90
24	20	F	215	110	24.8	130	0.85	190	210	2.70	2.70	2.70
25	20	M	230	125	26.5	145	0.85	220	240	3.00	3.00	3.00
26	20	F	220	115	25.5	135	0.85	200	220	2.80	2.80	2.80
27	20	M	235	130	26.8	150	0.85	230	250	3.10	3.10	3.10
28	20	F	225	120	25.8	140	0.85	210	230	2.90	2.90	2.90
29	20	M	240	135	27.0	155	0.85	240	260	3.20	3.20	3.20
30	20	F	230	125	26.0	145	0.85	220	240	3.00	3.00	3.00
31	20	M	245	140	27.5	160	0.85	250	270	3.30	3.30	3.30
32	20	F	235	130	26.5	150	0.85	230	250	3.10	3.10	3.10
33	20	M	250	145	28.0	165	0.85	260	280	3.40	3.40	3.40
34	20	F	240	135	27.0	155	0.85	240	260	3.20	3.20	3.20
35	20	M	255	150	28.5	170	0.85	270	290	3.50	3.50	3.50
36	20	F	245	140	27.5	160	0.85	250	270	3.30	3.30	3.30





Structure:

Class Diagram: Mutable Conversational Aggregator Business Entity (MCABE)

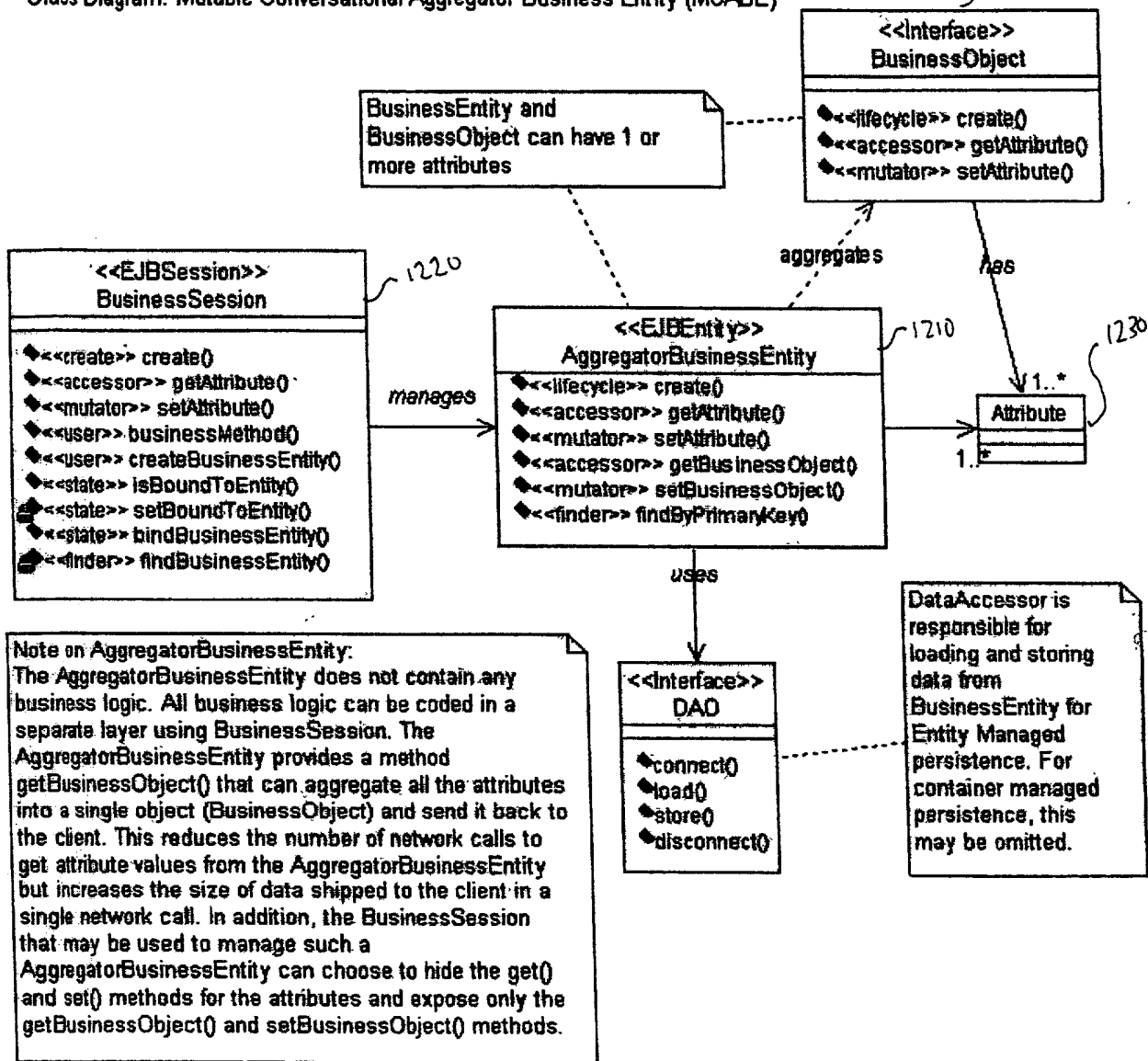


Figure 12

Structure:

Class Diagram: Business Delegate (BD)

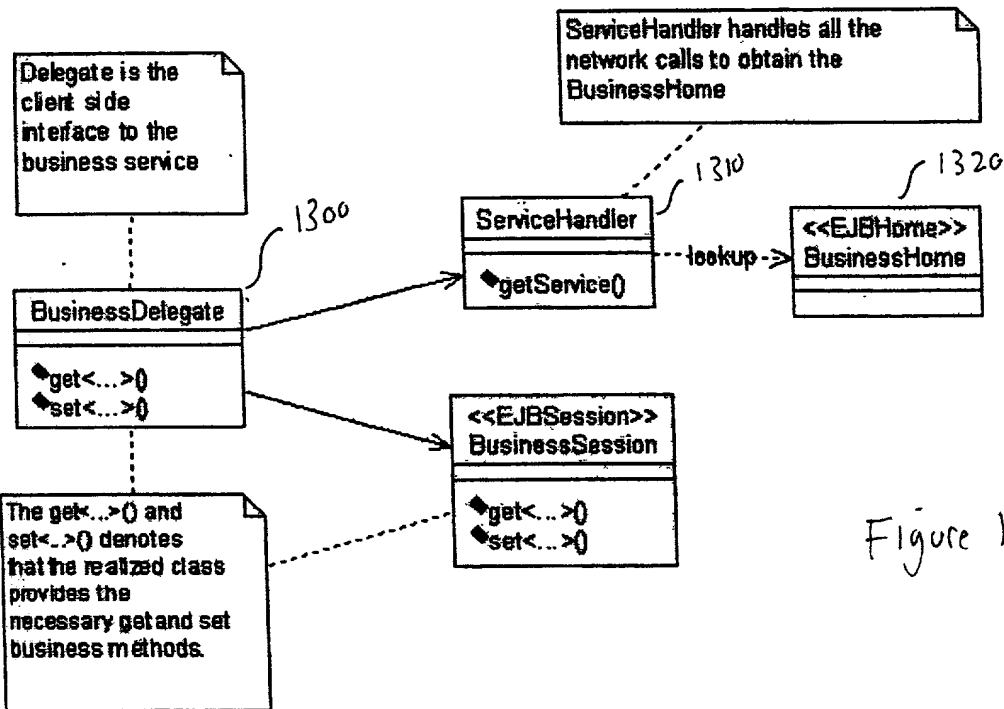
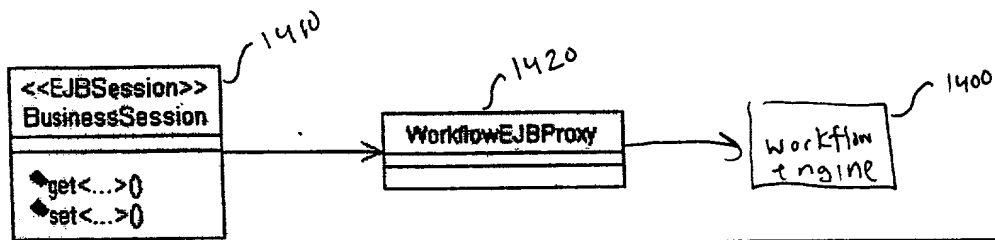


Figure 13

Structure:

Figure 14



Structure:

Class Diagram: Service Island Proxy

Figure 15

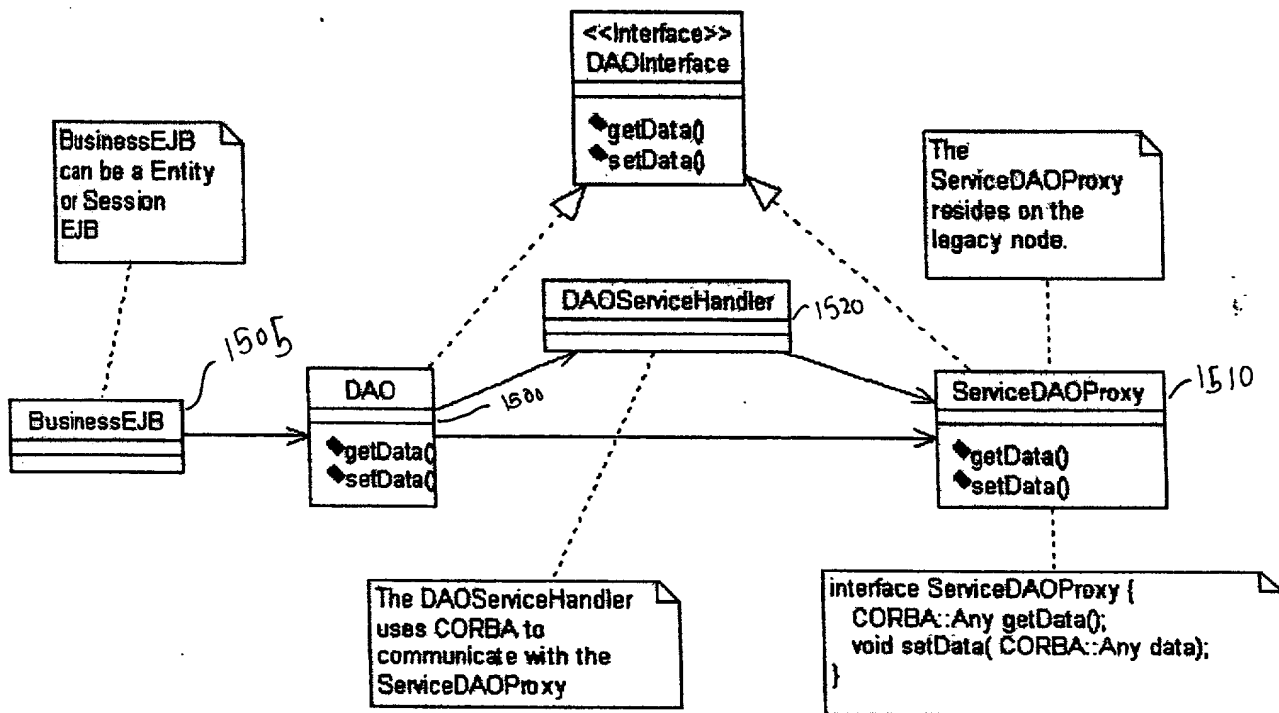
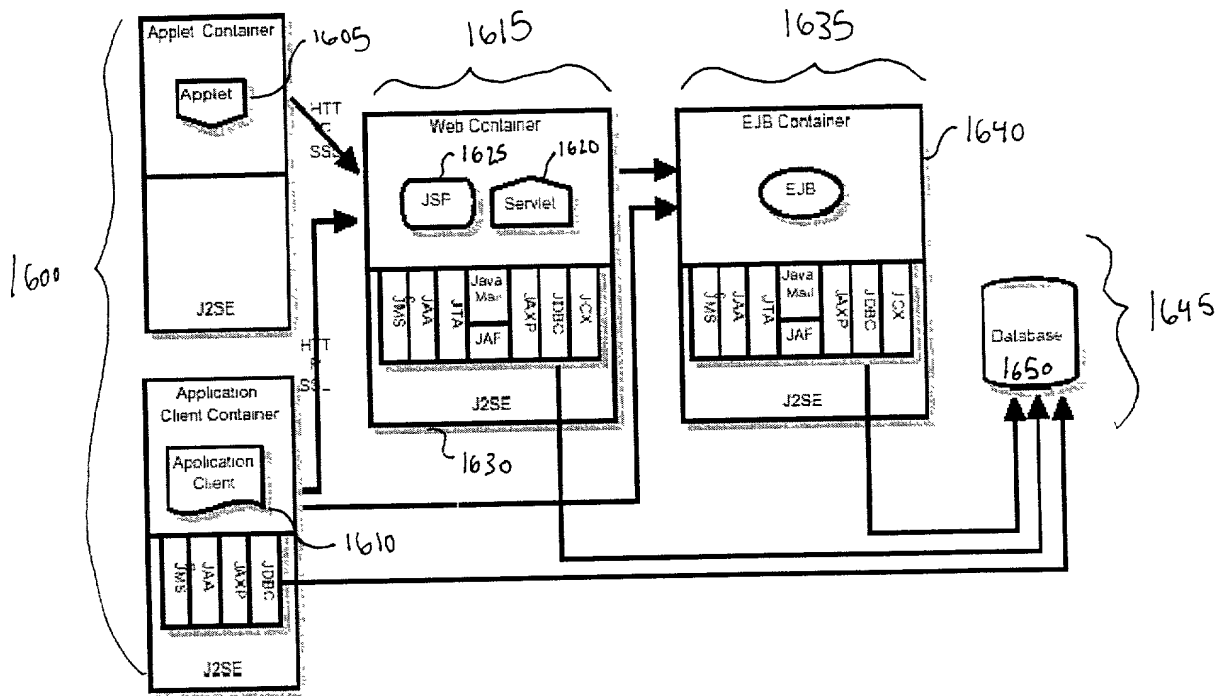


Figure 16



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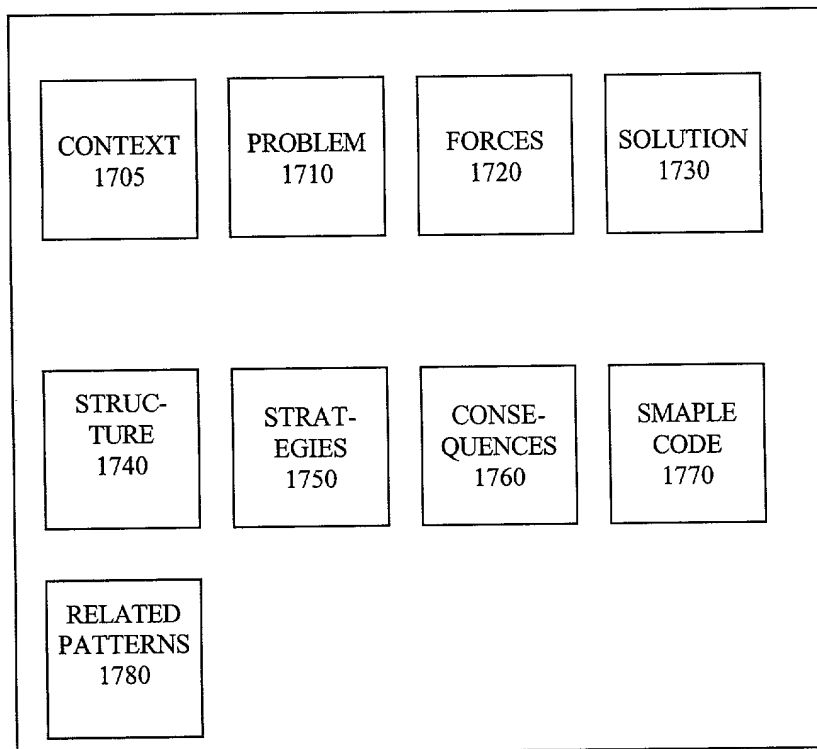


FIGURE 17

DESIGN PATTERN
1700